



**U. S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION REPORT**

**I. HEADING**

DATE: August 10, 2006  
SUBJECT: Radiation Technologies, Inc. Site, Rockaway Township, Morris County,  
New Jersey  
FROM: Dan Harkay, OSC Region II, Removal Action Branch  
TO: J. Rotola, EPA  
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*Dan Harkay*  
7/10/06

POLREP: One (1) [07/28/06 - 07/31/06]

**II. BACKGROUND** TO-33

Site No.: X5  
Delivery Order No.: 33  
Response Authority: CERCLA  
ERNS No.: N/A  
CERCLIS No.: NJD047684451  
NPL Status: NPL, September 1984  
Action Memo Status: Approved on June 22, 2006  
Start Date: July 11, 2006  
Completion Date:

**III. SITE INFORMATION**

**A. Incident Category**

Abandoned rocket propulsion design and testing facility

**B. Site Description**

**1. Site Description**

The Radiation Technologies Inc. site is located at 108 Lake Denmark Road in Rockaway Township, Morris County, New Jersey. Rockaway Township has a population of approximately

20,000 people. The site consists of 263 acres which is comprised of three distinct areas; the active Radiation Technology Incorporated (RTI) complex, the former Rockaway Industrial Park (RIP) and undeveloped land. Rockaway Township has a population of approximately 20,000 people. The area around the site is generally rural though significant residential and industrial development has occurred in recent years. Areas to the east of the site consist mainly of single-family residences. To the west of the Site, significant heavy industrial activities have been ongoing at the Army and Navy portions of the Picatinny Military Arsenal facilities since at least the 1920's. Areas to the east of the Site consist mainly of single-family residences.

The focus of the removal action is at the former RIP complex which is an inactive, partially developed 65 acre parcel, situated east of Lake Denmark Road. The RIP was used by the Reaction Motors, Inc./Thiokol Corporation to develop and test rocket engines and propellants from 1941 to 1972. The parcel contains several small buildings that had been recently used by small businesses including an auto mechanic and a landscaping service. The buildings are currently unoccupied. The RIP parcel is secured with a perimeter security fence.

## **2. Description of Threat**

The RIP facility is secured within a eight high foot chain link fence which is located around the perimeter of the parcel. The fence along the eastern property perimeter has piping attached to it which was covered with asbestos containing material (ACM) thermal system insulation (TSI). The total length of insulated pipe attached to the fence is approximately 600 feet. The protective membrane covering the ACM has deteriorated, exposing the friable ACM which is actively releasing fibers to the environment.

Adjacent to the fence at this location is a trail. The trail is parallel to the fence and appears to be heavily used by bikers and off road vehicles. Individuals using the trail are within a few feet of the ACM pipe insulation and could easily be exposed to airborne fibers that were actively being released.

Asbestos is considered a hazardous substance as defined in CERCLA Part 101 (14) and is a listed hazardous substance in Table 302.4 of 40 CFR Part 302. The environmental threats posed by the ACM include the release of asbestos fibers into the air and onto the ground surface. The ACM on the ground can migrate to other onsite and offsite areas via wind currents and surface water drainage.

## **3. Preliminary Results**

Samples collected from the ACM pipe insulation identified chrysotile asbestos at concentrations ranging from 8% to 15%.

# **IV. RESPONSE INFORMATION**

## **A. Previous Actions**

During the period from November 1980 to May 1981, the New Jersey Department of

Environmental Protection (NJDEP) and the Rockaway Township Health Department conducted numerous inspections of the Site. The NJDEP investigations focused on chemical types and quantities, waste disposal practices and chemical waste manufacturing processes used at the Site.

In March 1981, the Rockaway Township Health Department notified the NJDEP that two principal water supply wells on the Site were found to be contaminated with volatile organic compounds (VOCs). Both wells were subsequently closed by the Health Department.

NJDEP's investigations resulted in the issuance of an administrative Order and Notice of Prosecution to RTI. RTI was ordered to properly remove and cleanup spills, buried wastes and improperly stored waste materials. NJDEP issued a directive to RTI in November 1981, stating that their activities had contaminated the shallow groundwater table with VOCs and mandated that RTI determine the degree and extent of contamination.

In March, 1987, RTI entered into an administrative Consent Order (ACO) with NJDEP to pay for the Phase I Remedial Investigation Feasibility Study (RI/FS) to be performed by a contractor to NJDEP. In August, 1987, NJDEP's contractor initiated the RI/FS.

At the request of the NJDEP, the Environmental Protection Agency (EPA) took over as lead agency for remediation of the Site in January, 2001. A Consent Decree entered by the Court in May, 2004 requires Alliant Techsystems Inc. (ATK) to implement the ground water remedy selected in the Record of Decision for the Site. ATK is the successor to the Thiokol Corporation. In October 2004, EPA executed an Administrative Order on Consent (AOC) with ATK to address Operable Unit-2 RI/FS and to investigate potential soil contamination as well as other potential sources of groundwater contamination at the Site.

### **Remedial Activities**

At the request of the Remedial Project Manager (RPM), the Environmental Response Team (ERT) was tasked to evaluate buildings and structures on the RIP parcel and identify and sample Presumed Asbestos Contaminated Material (PACM) from those locations. On March 15, 2005, EPA's Response, Engineering and Analytical Contract (REAC) conducted a sampling event to characterize PACM levels within the site buildings and structures. The investigation revealed the presence of asbestos containing material (ACM) in significant quantity.

On March 31, 2006, the Remedial Project Manager (RPM) and On-Scene Coordinator (OSC) conducted a site visit to assess the condition of the ACM contamination present. The inspection revealed that the ACM pipe insulation attached to the pipes on the fence were actively releasing friable asbestos fibers. The insulation on the pipes was observed to be severely deteriorated and pieces of asbestos were visible on the ground below the pipe.

**B. Situation**

**1. Removal Actions to Date**

The following on-site activities were performed by EPA's cleanup contractor, WRS Infrastructure & Environment, Inc. (WRS), during the reporting period of July 28, 2006 through August 3, 2006:

- removed approximately 800 linear feet of asbestos containing material (ACM) pipe insulation from piping which was fastened to a perimeter fence and removal of ACM insulation from surface soil below the pipe. All ACM was wetted prior to removal, double bagged and labeled prior to placement in a 30 cubic yard roll-off for off-site disposal. All remediated pipe was sprayed with an encapsulant following removal of the ACM insulation.
- shipped one roll-off container (approximately 20 cubic yards) of asbestos containing material (ACM) debris for disposal at WM-G.R.O.W.S. Landfill located in Morrisville, Pennsylvania.
- conducted perimeter and personal air sampling during the ACM removal activities. Two exceedances of the OSHA permissible exposure limits (PELs) for asbestos were reported for the two personal air samples collected during the ACM removal activities. There were no exceedances reported at the two perimeter air sample locations.

RST collected 35 surface soil samples from soil surface areas below and adjacent to the pipe. Sample analysis included Asbestos by Polarized Light Microscopy (PLM) via the California Air Resources Board (CARB) 435 Method and Asbestos by Transmission Electron Microscopy (TEM) EPA 600/R-93/116 Method.

RST performed photo documentation and maintained a Site logbook. RST also collected field measurements and prepared a map of the remediated AOC. RST will prepare a sampling trip report detailing the ACM remediation and sampling activities.

**2. Enforcement**

None

**C. Next Steps**

Following review of the laboratory data, 10% of the PLM analyzed samples will be selected by the OSC for TEM confirmation analysis.

**D. Key Issues**

None

V. **COST INFORMATION** (as of 08/02/06)

**REMOVAL ACTION**

	<b>AMOUNT BUDGETED</b>	<b>COSTS TO DATE</b>	<b>TOTAL REMAINING</b>
ERRS Contractor Costs	\$ 28,000	\$ 16,270	\$ 11,729
START Contractor Costs		\$ 3,671	

VI. **DISPOSITION OF WASTES**

<b>DATE</b>	<b>WASTE STREAM</b>	<b>QUANTITY</b>	<b>TREATMENT/ DISPOSAL METHOD</b>	<b>DISPOSAL FACILITY</b>
07/31/06	Friable Asbestos Containing Material (ACM) Debris	20 cubic yds.	Landfill	WM-G.R.O.W.S. Landfill, Morrisville, PA